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SCIENCE

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THE ORGANIZATION OF THE MEDICAL PROFESSION FOR WAR¹

I FEEL greatly honored by the election to the position of president of the American Medical Association. I recognize not only the honor but also the responsibility of assuming the leadership of the organized medical profession of the country at this time. The war has made unusual and exacting demands on us. The government and the people are looking to us to furnish in this great emergency not only the necessary number of medical men for the Army and Navy, but also the highest degree of medical service and efficiency. This is proving to be a war not simply between well-organized armies but between efficiently organized nations. It is now clear that in order to win the war we must organize the entire nation in such a way that every man and woman must become a useful part of a great and powerful national military machine. No part of such a great national organization is more important than the medical profession, and on this, the opening evening of this great war meeting of American physicians, it is my purpose to address you on the organization of the medical profession for war.

ORGANIZATION OF THE ASSOCIATION

There are in the United States more than 145,000 men and women licensed in the various states to practise medicine. Of these more than 81,000 are members of the

¹ Part of the president's address by Arthur Dean Bevan, M.D., Chicago, before the American Medical Association at the Sixty-ninth Annual Session, Chicago, June, 1918. The address is printed in the *Journal* of the American Medical Association.

American Medical Association, and more than 45,000 are Fellows. The American Medical Association is organized along the most democratic and representative lines. No profession in this or in any other country is more thoroughly and efficiently organized than the American Medical Association. The unit of the organization is the county medical society. It is the avowed purpose of the county society to receive into its membership all reputable practitioners who are legally qualified to practise medicine. The county medical society is a democratic organization. It is not, nor is it intended to be, a select and exclusive medical society. Its functions are educational and social. It exists for the purpose of using the united efforts of the physicians of that county for the benefit of the people and for the education of its members. Any county society that is not democratic and representative is not fulfilling its proper function. By virtue of membership in the county society the physician becomes a member of his state medical society and of the national society—the American Medical Association.

During the first half century of its existence, the American Medical Association was a rather loosely organized body. It was founded for the special purpose of elevating the standards of medical education and practise. Its ideals were high, and it accomplished a great deal of good. Not, however, until its reorganization in 1901 on broad democratic and representative lines, did it become in fact the organized medical profession of the country. The American Medical Association is not sectarian, but is broad enough to include in its membership all licensed physicians who honorably practise scientific medicine.

ACTIVITIES OF THE ASSOCIATION

Since its reorganization, the American

Medical Association has had a record of splendid achievement. It has succeeded in elevating the standards of medical education in this country, which has been uneven and unsatisfactory, to a position where they are as high as those in any other country. It has improved the character of medical instruction until we can now state without fear of contradiction that the medical student can obtain as thorough and complete an education here in America as anywhere in the world.

Moreover, the American Medical Association has accomplished much through its council on medical education in cooperation with *The Journal*. Through these departments it has been of great service in creating a register of licensed practitioners. A register of medical students is now kept so that the association possesses a full record of the medical career of each licensed practitioner and medical student.

The American Medical Association and its constituent state medical associations have succeeded in securing improvements in the medical practise arts of most of our states protecting the people against ignorant and inefficient practitioners and securing better public health service.

The American Medical Association has through its Council on Pharmacy and Chemistry done outstanding, pioneer work against the unscientific and unnecessary use of drugs and against the prescribing of secret formulas and “quack” medicines. It has done more than any other medical organization to place drug therapy on a sound and scientific basis.

The Journal of the American Medical Association has become the largest and most influential medical periodical in the world. It has a circulation of more than 65,000 copies, and in the best sense it is the instrument that keeps the profession in touch with the affairs of the association, with sci-

entific medicine, and through well-prepared abstracts with the current medical literature of the world.

It is now more important than ever that these admirable activities of the association should be continued and amplified, and that steps should be taken to meet the new problems that will confront the association after the war. These will undoubtedly include the stimulation of medical research, the development of an adequate American medical literature, the creation of post-graduate medical facilities not only for our own medical men, but also for the medical men from other countries, who will find here in our great democracy a welcome and opportunities in medical instruction and medical research second to none. But these things can and must wait on the one great problem that confronts us now, *the winning of the war*.

DEMANDS MADE BY THE WAR

The problem that confronts the country in this war, as far as the development of the medical departments of the United States Army, Navy and Public Health Service are concerned, can briefly be stated in this way: If we raise an army of 3,000,000 men, 10 per cent. of this number will be in the medical department, that is, 300,000 officers and men, and of these at least 25,000 must be qualified physicians and surgeons. If we raise an army of 5,000,000 men, the medical department will contain 500,000 officers and men, and it will be necessary to have between 35,000 and 40,000 qualified medical men. At present there are more than 200,000 men authorized in the Medical Department of the Army. Of these, somewhere from 20,000 to 25,000 will be medical officers, and the balance enlisted men and nurses. If we create a navy of 500,000 we shall need 3,500 medical men. If we create a navy of a million, which is

probable, we shall need 7,000 medical men. The need of the Public Health Service, although more modest, will be considerable, and must be met. No one can prophesy the extent or duration of the war, but we can say with certainty that it is the purpose of the American people to create and maintain the largest and most efficient navy in the world and to organize and train and equip an army large enough to win the war.

WHO REPRESENTS THE MEDICAL PROFESSION?

The efficient organization of the medical profession of this country for war is being splendidly accomplished by the cooperation between the Medical Departments of the Army and Navy and the organized profession, the American Medical Association. It has been unfortunate that a medical advisory committee which is not in any way representative or democratic, and which has no proper function in the efficient organization of the medical profession for war, should have been called into existence. A small coterie of specialists, of gynecologists and surgeons, no matter how eminent or how successful they may have been as promoters and exploiters of special medical societies, can in no way in this great emergency and in this great democracy represent the medical profession.

RESPONSE OF THE PROFESSION

At the outbreak of the war, the American Medical Association offered to the United States government its entire organization and machinery to assist in the enormous expansion that became necessary. Through the officers of the county societies, the state societies, and particularly through the columns of *The Journal*, the needs of the government were placed before the organized profession of the country, and they responded splendidly to the call. So far

25,000 have gone into the Medical Departments of the Army and Navy. No other profession or calling has responded more promptly to the needs of the country than the medical profession. The great bulk of the medical men who have gone into the government services were members of the American Medical Association.

The demands made on the medical profession by the war are so great that it is evident that in order to secure the necessary number of medical men for the government, and at the same time prevent hardships in some communities and institutions, it is necessary to organize the entire profession of the country in a systematic way. It therefore became necessary for the American Medical Association, acting with the Surgeon-General's Office, to take a census of the available medical men in the United States in each state, in each county, in each medical school and in each hospital, and to attempt to secure from each one of these different units at least 20 per cent. of the medical men. This plan will enable the government to secure the necessary number of medical officers for an army of 5,000,000 men or more, and a navy of 1,000,000 without any great hardship to any community or to any institution. It is evident that a plan of this kind is absolutely essential, and it is the purpose of the American Medical Association through its county and state societies and its national organization to create such a systematic classification and secure the adoption of this plan. Such a plan means a voluntary draft of the medical profession by the profession itself. The medical profession will supply the men needed by the government. No conscription, no compulsion will be required.

THE HONOR ROLL

The survey has been completed, and was published in *The Journal*, June 1. It gives

the honor roll of the men who have already gone into the service from each county and state society. It gives the number of men under 45 and under 55 years of age in each county and the percentage of men who have volunteered. Up to this date about 15 per cent. of the total number of men have volunteered. The Surgeon-General of the Army has called for 5,000 more medical officers, and the Surgeon-General of the Navy needs about 2,000. It becomes necessary for us to raise the total number of medical officers this year to about 30,000, which means nearly 22 per cent. of the medical men of the country.

As president of the association, I desire to call the serious consideration of each county medical society to the fact that in order to do its duty it should furnish at least 20 per cent. of its members for military service. This situation should be met fully and promptly by each county medical society. In order to prevent hardships to communities due to lack of medical service, and in order to prevent the crippling of medical schools and hospitals, no community and no institution, unless it is clearly oversupplied, should be allowed to furnish more than 50 per cent. of its medical men. As far as possible the quota from each county should be filled by men under 45 years of age. If this is not possible men up to 55 will be taken. As fast as each county fills its quota of 20 per cent.—and this should be done by each county within the next few months—the secretary of the county medical society should notify the secretary of the state medical association and the secretary of the American Medical Association of that fact.

THE SUPPLY OF MEDICAL MEN

Profiting by the experience of the great nations that entered the war in 1914, the medical profession of the country, and the

government, have very wisely taken steps to prevent the disruption of our medical schools, and I am glad to say that our national government adopted the suggestion made by the Surgeon-General to allow medical students to be commissioned in the enlisted Medical Reserve Corps and have them detailed to complete their medical education and to serve a year in a hospital as interns before they are called into active service. This was to apply to the men who have already studied medicine in the medical school proper for one year. In order to insure the further supply of medical students to meet the demands of a great and prolonged war, the effort is being made to have this apply also to the men who are taking their premedical work in universities. It is necessary to have these men continue their medical studies in order to insure the continued supply and the necessary number of medical men.

The United States is the only great reservoir of medical men in the world. The medical professions of Great Britain and France, of Italy and Belgium, and this is probably more true of enemy countries, have been well nigh exhausted by this war. They delayed making plans for a continued supply, their medical schools became disrupted, and they are already suffering for medical men in their armies and in their civil life. Major Horace B. Arnold, chairman of the council on medical education, who is on active duty in the Surgeon-General's Office looking after the problem on medical education for General Gorgas, has this matter now under consideration, and it is to be hoped that he will succeed in securing rulings that will enable our premedical students to continue their medical courses. If the need for medical men becomes very great we can adopt a continuous session and graduate men in three years. The senior students in the medical schools

should have special courses in military surgery. I would recommend that if possible one or two competent medical officers be assigned to each medical school for this purpose.

EXPANSION OF THE MEDICAL DEPARTMENT

The enormous problem that was presented to the Surgeon-General's Office by the war may be realized in a striking way by the statement that the development of an adequate medical department of 3,000,000, men means that less than 2 per cent. of such a department is represented by the men in the service at the time of the outbreak of the war—that more than 98 per cent. of the men must be taken from civil life, and must be given the necessary military training to fit them for active duty in the field. This enormous problem is being adequately and splendidly met. A small medical department which existed before the war has formed the leaven necessary to change a great body of physicians coming from civil life into efficient military surgeons and efficient hospital and ambulance units. Special training camps for medical men were formed at Fort Riley, Fort Benjamin Harrison and Fort Oglethorpe. Gradually the work done by these different camps is being concentrated at Fort Oglethorpe, where an enormous military medical university of 40,000 officers and men is being created. Here the enlisted men will receive their necessary training in small and large units, and the medical officers will receive their necessary military instruction and instruction in such medical work as will peculiarly fit them for their military duties.

GENERAL GORGAS

Standing out prominently in the development of the great Medical Department of the Army is a great figure, the figure of Surgeon-General Gorgas, who in a very quiet way has demonstrated again the fact

that he is one of the greatest organizers in sanitation and in military medicine and surgery. It is most fortunate that in this emergency work of the medical department it was found in such strong and capable hands. General Gorgas is one of the great assets of this country to-day. The splendid work that he is doing he should continue to do throughout the war, and the organized profession of this country could do no greater service to the government than to make clear to the Washington authorities that they are unanimous in their support of Surgeon-General Gorgas, and regard him as the best man in the country for the head of the Medical Department of the Army.

General Gorgas has succeeded in surrounding himself with the strongest, most efficient men, and has shown great wisdom and judgment in placing specially qualified men at the heads of the many departments under his control. The men he has chosen from the regular corps as the heads of divisions are strong and efficient: it is only necessary to mention such men as Welch, Vaughan, Billings, Mayo, de Schweinitz and scores of others, who in civil life are the recognized leaders in their special field of work, recognized not only in this country, but throughout the world.

We are equally fortunate in finding the Medical Department of the Navy in the efficient hands of Admiral Braisted, who has succeeded in meeting the great expansion made necessary by the war in the most satisfactory way.

The medical profession is also proud of the splendid service that has been rendered by the Public Health Service under the able leadership of Surgeon-General Blue.

HEALTH DURING MOBILIZATION

The mobilization of this country for war is an enormous task. To create an army of from three to five million men or more,

where before we had less than 100,000, and create a navy of from 500,000 to 1,000,000 is an undertaking that had never before been worked out by any country. It was necessary that this enormous mobilization should be done as rapidly as possible, and from the rapidity and the enormous size of the mobilization it was inevitable that the medical organization could not accomplish the impossible and secure at once ideal results. Yet when we compare the mobilization of the United States for war with other countries we find cause for congratulation. Up to the time of our mobilization the army of Japan had held the record for the lowest mortality of any country during mobilization, and the best care of its soldiers from a medical standpoint. In the Japanese mobilization there was a mortality of 20 per thousand. In our mobilization there has been a little less than 10 per thousand. In other words, the showing of our mobilization from the standpoint of mortality was twice as good as the record held by any country up to that time. There have been epidemics of contagious diseases, such as measles, mumps and meningitis, and the total number of cases occurring among 2,000,000 men has been somewhat startling; but when these facts are analyzed and it is found that the mortality in our army is less than the mortality in civil life of the same number of men of the same age, picked by insurance companies, we can realize what splendid results have been accomplished.

The people of this country, the mothers and fathers and wives, whose sons and husbands are in the Army and Navy, are entitled to know, and it will be a great comfort to them to know, that the health of these men is better looked out for than when they were in civil life, that the dangers that they run from disease are less than when they were in civil life, and that when

they are sick or wounded they will receive as good care, as high a class of medical and surgical service, as could possibly be obtained in civil life. This is true because our best men have gone into the medical service, and the government is providing the medical departments with every facility necessary to give our soldiers the best medical care.

THE LABELLING OF FAIR EXHIBITS AS AN AID TO AGRICULTURAL PRODUCTION

IN past years and even at this time, when increased conservation and production of food is so desirable, the people of North America invest a tremendous sum in over 2,000 county fairs and similar agricultural exhibitions. This investment loses much of its effectiveness—perhaps more than half—because of lack of labels, scarcity of labels or imperfect labels.

By labels is not meant such labels as are used in the great museums where too much attention is given to the specimen and too little to the desirable effect of the exhibit or the effect of the label, if it be present at all. Over sixteen years' experience in the American Museum of Natural History, perhaps the largest museum on the continent, convinced me that useful labels are more rare and more valuable than the exhibits.

At the Central Canada Exhibition in Ottawa was once exhibited a very interesting hand-woven fabric apparently of farmer handiwork, but close examination of the exhibit failed to reveal where it was made, by what class of people, its value, or where such fabrics could be obtained. Otherwise intelligent people have been known to lay in a stock of fall fruit, part of which spoiled before the winter was over. A label at the fair on fruit preservation would have saved this loss. When one views the machinery at a fair he is often at a loss to know for what it may be used. Many similar examples could be given. Probably more than half the people who visit a fair grope their way through without understand-

ing many of the exhibits. They go as a lark, but could learn at the same time things that would make them more useful to the whole country. An additional investment, small in proportion to the present whole cost of fairs, would change them from amusements or casual advertisements to educational institutions resulting in diffusing the best agricultural knowledge discovered by the government experts.

An additional investment of less than one cent per exhibit would provide suitable educational labels and probably double, if not multiply the productive national value of the fairs many fold. It is not proposed that each fair should write and print its own labels. This would mean that the ignorant or least skilled would write the labels, whereas we have intelligent and skilled specialists in provincial or national agricultural departments, as well as in agricultural colleges and experiment stations. It would also mean that there would be as many labels written as there are fairs, a tremendous overlapping of effort and expense, while one writing would do for all.

It is not advocated to label each exhibit, for instance each cow, but to label each breed. In the case of large exhibits with many individuals, as of Clydesdale horses, one label would be put at each end of each row of stalls and perhaps in one or more places between.

Perhaps labels should not be made in this particular way for everything in every fair, but for those things that are common to most of the fairs. One could take the list of exhibits at a typical fair and make a label for each class of exhibits, such as Holstein cows, Plymouth Rock chickens, northern spy apples, Hubbard squash and windmills. They would not be advertisements for any firm.

Each label should be written by the leading expert in that particular sort of exhibit—breed of cattle, swine, bee, wheat, potato, apple, gang plow, threshing machine, windmill, motor, or what not. This label should be criticised by many other experts and then rewritten by a man who is an expert in interpreting facts to the people—to farmers and